LAS VEGAS VALLEY WATERSHED ADVISORY COMMITTEE
Southern Nevada Water Authority
100 City Parkway
Las Vegas, NV
September 8, 2015
2:00 p.m.

Members Present: Priscilla Howell, *City of Henderson, (COH)*
Dave Johnson, *Las Vegas Valley Water District (LVVWD)*
Zane Marshall, Southern Nevada Water Authority (SNWA)
Sherri McMahon, *City of Las Vegas (alt. CLV)*
Tom Minwegen, *Clark County Water Reclamation District (CCWRD)*
Steve Parrish, *Clark County Regional Flood Control District (CCRFCD)*
Jane Pike, *Clark County (alt. CC)*

Also Present:

Keiba Crear	Ebrahim Juma
Rick Donahue	Ganesh Kadam
Doug Drury	Angela MacKinnon
Adrian Edwards	David Mendenhall
Dan Fischer	Chip Paulson
Sandra Harris	Tim Sutko
Chuck Hauser	Todd Tietjen
Zach Hills	Kent Turner

1. Welcome/Call to Order
Zane Marshall called the meeting to order at 2:06 p.m. as Tom Minwegen was going to be late. Zane suggested the group cover items 1 through 3 and 6 through 7, noting that Tom would arrive by then.

2. Public Comment
Seeing no request for public comment, Zane moved forward with the meeting.

3. Introductions
Participants introduced themselves.

4. Approve August 11, 2015 Meeting Summary
Motion to approve the summary passed.

5. Receive an Informational Update on Items Related to the Las Vegas Valley Watershed Advisory Committee (LVVWAC) that may appear on Future Regular Board Meetings of LVVWAC Members' Appointing Agencies
Zane noted that the Southern Nevada Water Authority has an agreement with the United States Geological Survey to operate gauges along the Las Vegas Wash (Wash) and Virgin and Muddy rivers.

6. Receive Presentation on Selenium Management Data

Todd Tietjen gave the presentation on selenium (Se) concentration data along the Wash, tributaries, and Lake Mead. The current concentration level of 5 µg/L was set by the Environmental Protection Agency (EPA) in 1987. In 1998, EPA stated that a fish-tissue criterion would be more reliable than a water criterion, and in 1999, EPA published an acute criterion of 20 µg/l and reaffirmed the chronic value. In 2004, EPA published draft criteria based on whole-body fish tissue concentrations of 7.91 µg/g dry weight, considering seasonal factors. In July 2015, EPA released a draft aquatic life chronic criterion for Se with several components. Covering Lake Mead, the proposed standard for lentic (lake) waters is 1.2 µg/L (30-day average), and covering the Wash and tributaries, the proposed standard for lotic (flowing) waters is 3.1 µg/L (30-day average). These conditions are not to be exceeded more than once in three years. In fish tissue, the draft criterion components are as follows; whole body: 8.0 µg/g dry weight; muscle tissue: 11.3 µg/g dry weight and in egg – ovary: 15.8 µg/g dry weight. Fish tissue concentrations are not to be exceeded in any samples. The maximum contaminant level for drinking water is 50 µg/L. Se is a naturally occurring element; however, elevated levels have been tied to human activity such as irrigation of high Se soils, ash pond discharge from power plants using Se containing coal, refinery effluent and mining runoff. It affects aquatic life primarily through impacts on reproductive ability and deformities in larval fish. Se exposure is primarily through diet and Se does bio-accumulate, though it does not significantly biomagnify. Reviewing the 15-year history of data in Lake Mead, the Wash and its tributaries, it appears unlikely that the proposed criterion would be met. Looking at raw water from the Big Bend treatment plant, the data shows that the flowing water standard would be met, but the standing water criterion would be exceeded. Todd also pointed out fish data collected along the Wash between 2003 and 2010; most samples did not exceed the criterion but some did. In conclusion, samples from Lake Mead are almost all below the current 5 µg/L threshold, but would be above the proposed 1.2 µg/L value. All Lake Mead data is far below the drinking water threshold of 50 µg/L. Big Bend raw water values suggest that Lake Mohave will be above the 1.2 µg/L threshold, but at the location of the intake the 3.1 µg/L flowing water value would be met. All locations sampled in the tributaries and the Wash will likely exceed the proposed 3.1 µg/L criteria for water samples. Samples collected from downstream of all wastewater discharge points are generally below 3.1 µg/L, but have at least one value in the triennial period that exceeds 3.1 µg/L. The fish Se data collected in the past suggest that if new information were collected, the fish tissue based criteria might be met in Lake Mead and the lower Wash.

7. Receive Presentation on the Status of Lower Las Vegas Wash Stabilization

Zach Hills presented. He began by reminding the LVVWAC of the history and background of lower Wash stabilization just below Lake Las Vegas, which is completely on National Park Service (NPS) land. The Federal Highway Administration (FHWA) estimates 150,000 to 460,000 cubic yards of sediment is deposited into Lake Mead each year with low lake levels. This puts at risk the water quality, existing grade control structures, Lake Las Vegas dams and the Northshore Road bridge. In the early 1960s, reinforced concrete boxes (RBCs) were installed to allow the Wash to flow through at Northshore Road. In 1969, Northshore Road integrity became questionable, and the FHWA replaced the RBCs with Northshore Road bridge in 1978. In 2002, three drop structures were installed. In 2007, about 20 feet of head-cutting migrated toward Drop Structure 3, causing a partial collapse. SNWA and the Bureau of Reclamation assisted in measures to save that structure. In July 2010, the FHWA published a report on the lower Wash. The report contained information on stabilizing that section of the

Wash and estimated that within the next 20 years, the head-cut could amount to 100 feet causing the bridge to fail. The report called out a funding mechanism which recommended building one structure every five years with a 30-year build out. However, that leaves a 10-year difference between expected bridge failure and completion of the weir construction. In February 2013, the NPS conducted an environmental assessment that indicated that there would be no significant environmental impact with building the weirs. In April 2015, the LVVWAC sent a letter to Senator Harry Reid reemphasizing the critical need for the building of these weirs and requesting expedited funding. Construction on Drop Structure 4 began in February 2014, but incurred substantial delays due to differing site conditions. Drop Structures 1 through 3 continue to require major repairs. Within the July 2010 report, in addition to the building of a structure every five years, there is a suggestion to replace the bridge at a cost of $23 million and install six additional grade control structures at a cost of $36 million. As Lake Mead's level has dropped even more since then, in addition to the nine recommended weirs, a 10th weir is needed. Zach showed aerials of the suggested weir locations and site access. Prior to Gerry Hester's retirement, he developed a cost estimate for the program of $90 million and a much more aggressive schedule to prevent additional damage to existing weirs and an increase of sediment into Lake Mead. Dave Johnson further explained the danger of the confluence reaching not only Intakes 1 and 2, but also Intake 3. Dave further explained that there is no suggestion of who is doing the work, just that it needs to be done. Tom Minwegen noted that he had only heard from two delegates in reference to the letter and they have made it clear that there is no funding for this project.

8. Discuss Executive Order 13690 – Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input

Steve Parrish reported that President Obama signed Executive Order 13690 as a result of Hurricane Sandy and the billions of dollars spent on rebuilding structures. It was determined if that much was spent on reconstruction, then it should be built to a higher standard or the same things would happen again. This order was created to require that federally funded infrastructure be built at a higher standard than the 100-year standard. This order requires any federal agency that receives federal funds to adhere to the order.

9. Discuss Nevada Division of Environmental Protection Stormwater Audit

Tom Minwegen presented. The Clean Water Team was asked to draft a presentation of audit findings for county commissioners and Tom shared that draft. The audit was conducted by the Nevada Division of Environment Protection (NDEP) on February 18-21 and March 4-6, 2014. It was conducted over a series of different days because of the amount of co-permittees. The purpose of the audit was to assess the Las Vegas Valley agencies for compliance with the Las Vegas Valley Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) permit, and the Las Vegas Valley Storm Water Quality Management Plan (SWMP). Those audited include City of Las Vegas, City of Henderson, City of North Las Vegas, Clark County and Clark County Regional Flood Control District. NDEP found compliance issues with all five co-permittees that must be addressed. The audit also concluded that an MS4 program that is compliant with the NPDES permit and SWMP must be established and maintained. The audit revealed at all co-permittee levels that there is: lack of awareness and commitment from the organizations' leadership; lack of program coordination; no single point of oversight of permittee programs; insufficient execution; lack of leadership, coordination and accountability within permittee organizations and a lack of resources allocated by the permittees. The response that NDEP is expecting is an MS4

program management structure that includes: clear evidence that elected board members and city/county managers are aware of and are committed to the program, a named organization and leader that is empowered and accountable to oversee compliance with the NPDES permit and SWMP, a named leader within each co-permittee's organization that is empowered and accountable to execute the entire program, and a commitment to ensure that the budgets of all co-permittees include allocations for staffing, equipment and materials. Potential permit violations and areas needing improvement include legal authority, training, mapping of major outfalls in the MS4, public outreach and education, MS4 maintenance activities, post-construction program for new development and significant redevelopment, illicit discharge detection and elimination, industrial facility monitoring and control, construction and industrial site inspections, monitoring, and stormwater budgets. They are expected to respond by December 4, 2015 and should focus on violations and areas that need improvement.

10. Set Next Meeting Date and Propose Items for the Next Meeting's Agenda

The next meeting is scheduled for October 13, 2015. An item for that agenda is the stormwater audit response.

11. Public Comment

There were no comments. Meeting adjourned.